latter states until the thread completes, at which time it transitions back in the Core Unassigned queue.

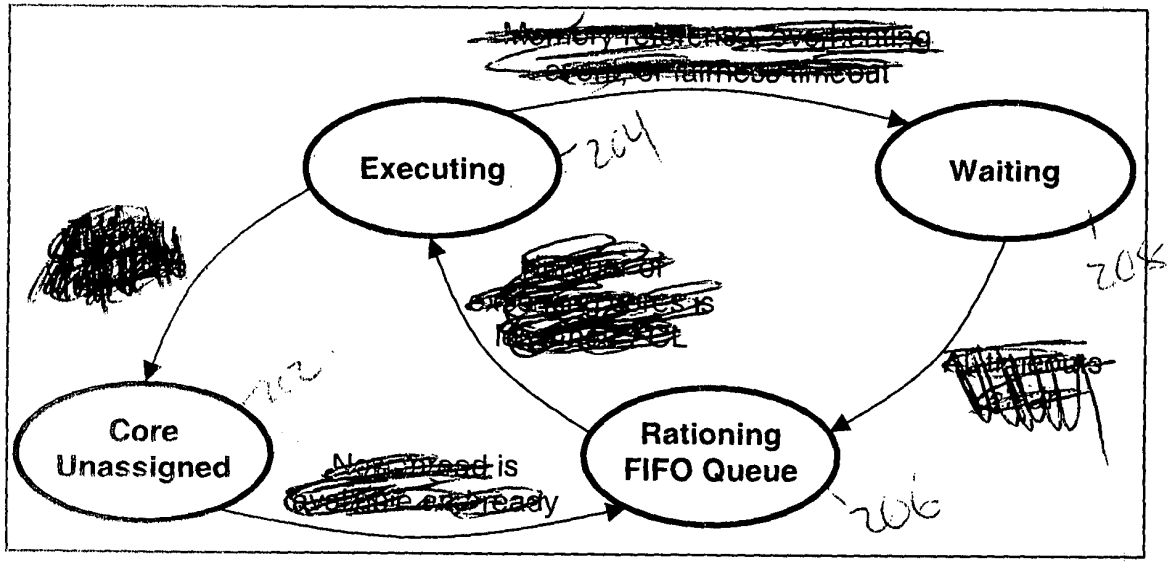


Figure 1. CRSO State Diagram for each core.

1.2.1 Core Rationing Simulation

the frequency. As mentioned before, f is inversely proportional to the ECL because as the number of executing cores is reduced, dynamic power dissipation is reduced, and therefore f can be increased to remain at the steady-state thermal limit. Total performance thus includes the effects of increased f as the ECL is reduced.

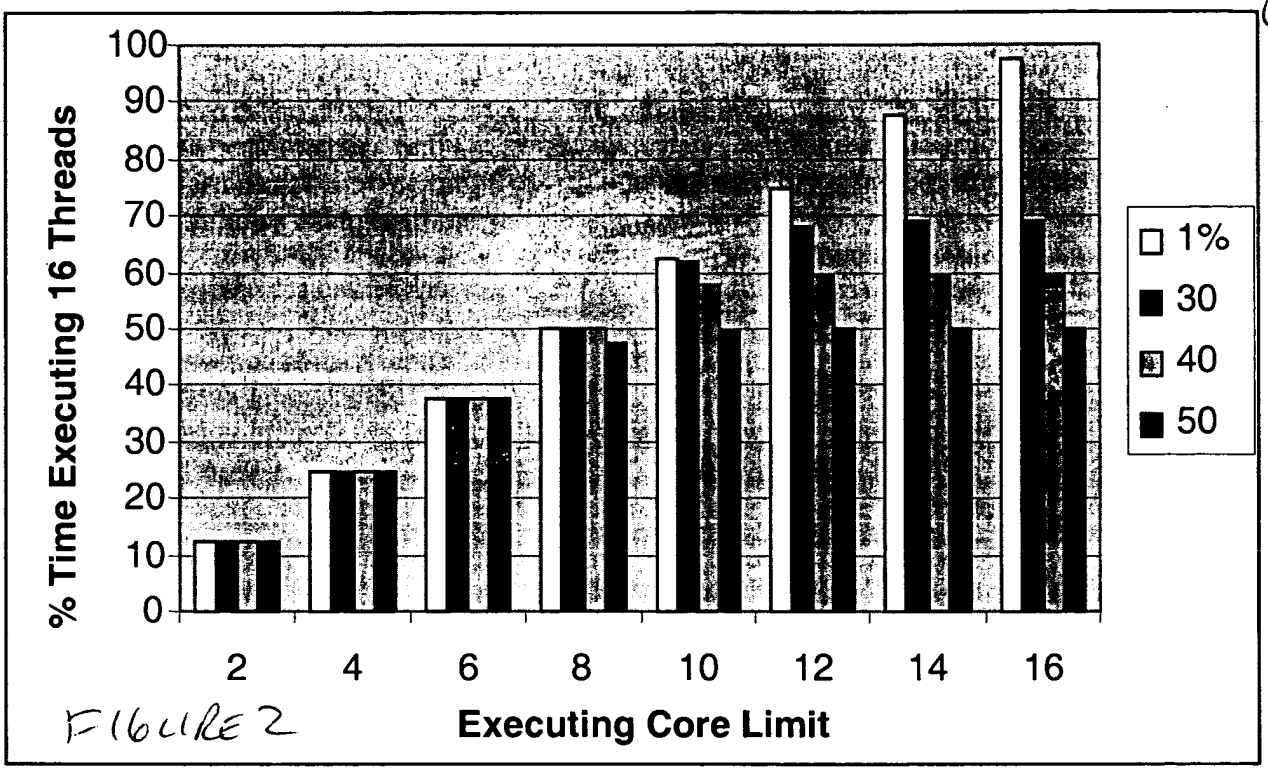
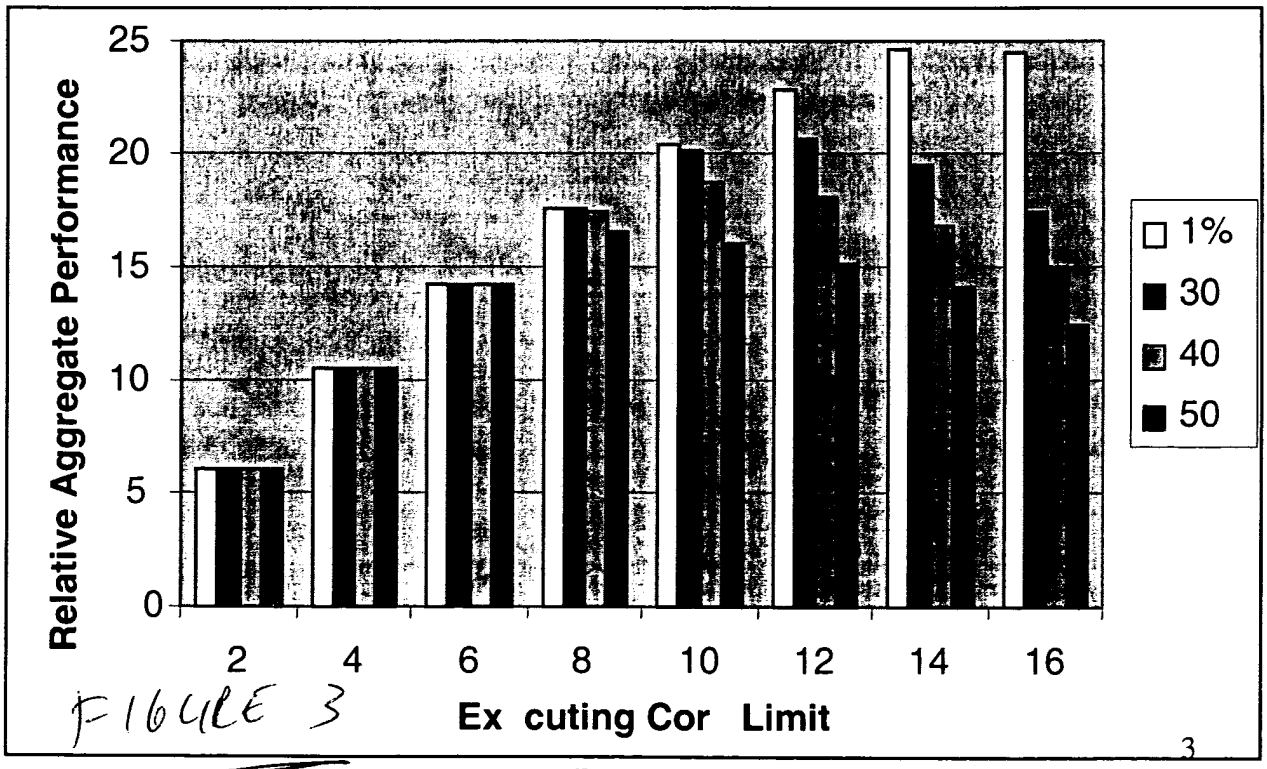


Figure 2. Percentage Time Executing from Monte Carlo simulation of 16 threads with 1%, 30%, 40%, and 50% memory reference duty cycle.



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~~**Figure 3. Relative Aggregate Performance from Monte Carlo simulation of 16 threads with 1%, 30%, 40%, and 50% memory reference duty cycle**~~

FIGURE 4

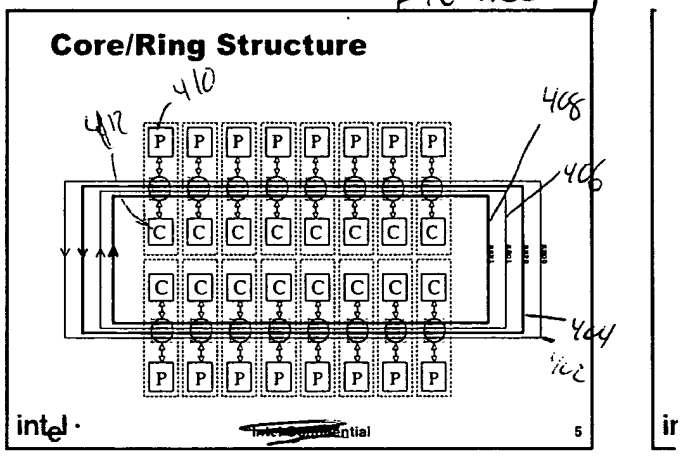

FIGURE 4

what is 412?